

Food Establishment Resource Library



Sanitizer Fact Sheet

Cleaning is the removal of food, soil and other types of debris from a surface.

By itself, cleaning does not consistently reduce contamination to safe levels. Therefore, food-contact surfaces should be cleaned and sanitized after each use to reduce the number of illness causing microorganisms to acceptable levels.

Sanitizer Solutions

There are three acceptable types of sanitizer solutions for use in a food establishment.

1. Chlorine (Bleach)*

Concentration: 50 to 100 ppm

Chlorine based sanitizers are the most commonly used sanitizers. They are effective against all bacteria and are fairly inexpensive. Bleach is less effective in hot water and works best at a temperature range of 55°F-75°F.

*Do not use splashless, scented or non-chlorine/color safe bleach

2. Quaternary Ammonia (QUAT, QAC)

Concentration: Per manufacturer's instruction

Quaternary ammonium compounds in diluted form are odorless, colorless and nontoxic. Advantages of QAC's are that they leave a residual antimicrobial film, are stable at high temperatures, and are more effective in the presence of organic materials than chlorine (they are less affected by light soil than are other sanitizers). Longer contact time is needed with this sanitizer, since it is slow-acting against some common spoilage bacteria.

3. Iodine

Concentration: 12.5 to 25 ppm

Iodine compounds or iodophors, are fast-acting and effective against all bacteria. They are relatively nontoxic, non-irritating to skin and stable. Iodophor solutions may stain porous surfaces and some plastics.

Follow manufacturer's label instructions; using sanitizers above recommended concentrations does not sanitize better and may actually corrode equipment. High concentrations can be unsafe and leave an odor or bad taste on surfaces.

A suitable testing method must be available and used regularly to ensure correct sanitizer levels throughout the day. Every establishment must have appropriate sanitizer test kits available to monitor the sanitizer's concentration.

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Effectiveness

There are three factors that influence the effectiveness of chemical sanitizers.

1. **Concentration** – not using enough sanitizing agent will result in an inadequate reduction of microorganisms. Using too much sanitizing agent can be toxic.
2. **Temperature** – generally chemical sanitizers work best at temperatures between 55°F (13°C) and 120°F (49°C). (See manufacturer’s recommendations for specific temperatures.)
3. **Contact time** – to effectively kill microorganisms, the cleaned item must be in contact with the sanitizer (either heat or approved chemical) for the recommended length of time.

How to Sanitize

There are three ways to properly sanitize. Surfaces must be cleaned before they can be sanitized. Sanitizer solution (regardless of the type used) must be available in every work area for equipment such as meat slicers, counters, food preparation tables, cutting boards and utensils.

1. Buckets/Containers

- Buckets that are easily identifiable (e.g. red buckets) and not used for any other purposes do not require labels. Buckets that are not easily identifiable must be labeled (“sanitizer,” or the name of the chemical).
- Store buckets below and away from foods and food contact surfaces.
- Keep wiping cloths stored in bucket with sanitizer solution when not being used.
- Replace solutions when the concentration gets weak or when the solution becomes cloudy.
- Designate a separate sanitizer bucket strictly for raw animal product(s) where needed.

2. Spray Bottles

- Properly label spray bottle(s) (“sanitizer,” or name of chemical).
- Never spray around open food and only spray where foods are protected with an impermeable cover.
- Replace solutions when the concentration gets weak or when the solution becomes cloudy.
- Allow for the appropriate contact time before wiping off.

3. Wipes

- Purchase wipes with the appropriate concentration for use in food establishments and approved for use on food contact surfaces.
- Allow for the appropriate contact time and let air dry.